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[57] ABSTRACT

A spinal rod coupler assembly providing four degrees of freedom for connecting a spinal rod to a vertebrae of a patient which includes a tubular coupler member, an eyebolt, an insert and a set screw. The coupler member has a longitudinal bore, a central axis, and an end portion that is open ended and internally threaded and a second end portion that is closed. A plurality of openings in the tubular coupler member that includes a first pair of openings intersecting the central axis of the bore at generally right angles and a second pair of openings intersecting the central axis of the bore at generally right angles. The first and second pairs of openings being perpendicular to each other. The first pair of openings are sized and shaped to receive a spinal rod. The eyebolt has a shank portion and an eye portion, with the shank portion being insertable through the second pair of openings of the coupler body. The eye portion has an opening sized and shaped to mate with a selected bone bolt or bone screw. The insert fits within the bore and has opposed, arc-shaped end portions with recesses for engaging the spinal rod and eyebolt member. The set screw threadably engages the internally threaded end portion of the bore and tightens the assembly of the rod, insert, and eyebolt within the coupler member.

16 Claims, 6 Drawing Sheets